

REMARKS

Following the Final Rejection dated May 28, 2008, the status of the claims is as follows. Claims 1-4, 6-8, 12, 13, 17-20 are currently pending. Claims 14-16 have been canceled. Previously, claims 1-4, 6-8 and 13-20 were finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Penn et al. (U.S. Patent No. 6,731,976, "Penn") in view of Zierhofer (U.S. Patent No. 6,600,955, "Zierhofer") and further in view of Najafi et al. (U.S. Patent No. 4,211,048, "Najafi"). Claim 12 was indicated as containing new matter.

Prior Art Rejection

Independent claims 1 and 13 have been amended to clearly recite that the implantable brain state monitoring system of the present disclosure includes a sigma-delta modulator that converts the analog signal to a 1-bit data stream, which is then transmitted over a wireless communication link to a remote processing unit. None of the prior art asserted by the Examiner in the Final Rejection, *viz.*, Penn, Zierhofer and Najafi, disclose or suggest this limitation of claims 1 and 13. More specifically, none of the cited prior art describe that only the front-end of a sigma-delta (Σ - Δ) analog-to-digital converter (i.e. the Σ - Δ modulator) is placed in the implantable device, and that the generated 1-bit data sequence is wirelessly transmitted to an external processing unit where the data is filtered for complete implementation of the sigma-delta analog-to-digital conversion process.

It is respectfully submitted that the new claims as submitted are allowable over the prior art of record, and early indication of the same is earnestly solicited.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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